PATENT ABSTRACTS OF JAPAN

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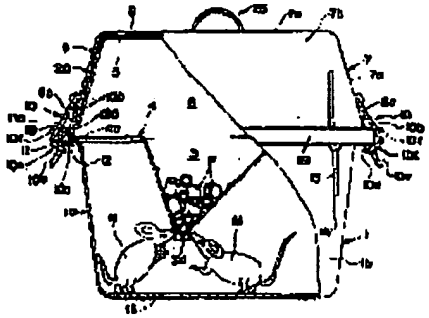
(54) EXPERIMENTAL ANIMAL BREEDING CAGE

(57)Abstract:
PROBLEM TO BE SOLVED: To provide an experimental animal breeding cage capable of preventing mutual contamination between experimental animals in the cage and metual contermination between the experimental animals in the cage and human beings by preventing the flowing out of pathogenic bacteria from a cage main body to outside or in flow of pathogenic bacteria and dust from the outside to the cage main body.
SOLUTION: The cage is provided with the cage main body 1, an inner metallic fence cover 4 having a baite feed recessed part 3 and an opening 5 for stretch-fitting a filter, and is constituted of a box-like upper cover 7 covering the main body 1, a sheet-like filter 8 arranged along the opening 5 for preventing the passage of pathogenic bacteria, etc., though allowing air to flow through, an outer metallic fence cover 9 for pressing the filter and a pair of locking materials 10 on both side fixing the cover 4, upper cover 7, the filter 8 and the cover 9 to the main body 1.



LEGAL STATUS

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[Date of extinction of right]	

* NOTICES *

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CLAIMS

[Claim(s)]
[Claim 1] The box-like body of a cage, and the inside wire gauze lid arranged so that it may have the cavity for a feed of the letter of the longitudinal-section abbreviation for V characters and the top-face opening may be covered in said body of a cage, The box-like top cover put on said body of a cage so that it may have opening for filter set-up and the space section for air supply may be formed above said inside wire gauze lid, The filter of the shape of a sheet which prevents passage of a disease germ etc. although it is arranged along with opening for filter set-up of this top cover and circulation of air is allowed, By carrying out pivotable support connection to the both ends of the outside wire gauze lid for a filter presser foot arranged through said filter at said opening for filter set-up, and this outside wire gauze lid, and stopping the stop section of the free end section in the stopped section of the both ends of a cage body the lock member of the both-sides pair which fixed the inside wire gauze lid, the top cover, the filter, and the outside wire gauze lid to the body of a cage -- since -- the becoming laboratory animal breeding cage.
[Claim 2] the line which an engagement step is attached inside this protruding line section while the protruding line section is attached around the top-face opening periphery at said body of a cage, and forms the periphery frame of said inside wire gauze lid in this engagement step -- the laboratory animal breeding cage according to claim 1 with which the body is engaged.
[Claim 3] The laboratory animal breeding cage according to claim 1 or 2 with which the concave streak section which carries out adhesion fitting is attached around the opening periphery of said top cover at the protruding line section of said body of a cage.
[Claim 4] Said top cover is a laboratory animal breeding cage according to claim 1 to 3 with which it consists of a both-ends wall, the order side-attachment-wall section, and the upper wall section, the both-ends wall and the upper wall section of this top cover are covered, and opening for filter set-up is formed.
[Claim 5] The laboratory animal breeding cage according to claim 1 to 4 with which the wire which forms the periphery frame of said outside wire gauze lid for a filter presser foot engages with said engagement step through said filter periphery section while an engagement step is attached along the opening periphery for filter set-up of said top cover and the periphery section of said filter is supported by this engagement step.
[Claim 6] The laboratory animal breeding cage according to claim 1 to 5 with which two or more **** for filter support are arranged in the opening circles for filter set-up of said top cover.
[Claim 7] The cavity for the letter feed of the longitudinal-section abbreviation for V characters of said inside wire gauze lid is a laboratory animal breeding cage according to claim 1 to 6 with which the lower limit section is formed in the longitudinal-section facing-up KO character-like groove.
[Claim 8] Said filter is a laboratory animal breeding cage according to claim 1 to 7 which consists of a nonwoven fabric.
[Claim 9] Said body of a cage consists of a both-ends wall, the order side-attachment-wall section, and the bottom wall section, and the rib of the both-sides pair prolonged to the middle height location of this skin to a lower part in the skin of the order side-attachment-wall section from said engagement step inferior surface of tongue of the body of a cage protrudes

on the location where the o[redacted]side-attachment-wall section corresp[redacted] The laboratory animal breeding cage accor[redacted]g to claim 1 to 8 with which the engagem[redacted] crevice where said engagement heights are engaged is formed in the engagement step top face of said body of a cage corresponding to the upper limit part of each rib while engagement heights are formed in the lower limit of each rib.

[Claim 10] To said top cover, while the rib of the both-sides pair prolonged from the concave streak section side of a top cover to the middle height location of this skin upwards protrudes on the location where the order side-attachment-wall section corresponds and engagement heights are formed in the skin of the order side-attachment-wall section at the upper limit of each rib The laboratory animal breeding cage according to claim 1 to 9 with which the engagement crevice where said engagement heights are engaged is formed in the concave streak section inferior surface of tongue of said lid corresponding to the lower limit part of each rib.

[Claim 11] Said each lock member is a front view abbreviation facing-up KO character-like, and bends a wire in the shape of side view abbreviation for L characters. **** of a both-sides pair, and the protrusion lever which projects in the sense within an abbreviation right angle from the lower limit of both ****, respectively. The horizontal lever which is a horizontal lever of the shape of abbreviation Yamagata which connects both the protrusion lever c, and made the crowning of the Yamagata the stop section is formed in one.

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DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to the laboratory animal breeding cage for breeding laboratory animals, such as a mouse, a rat, and a guinea pig.
[0002]
[Description of the Prior Art] as a conventional laboratory animal breeding cage , there be some which be indicated by JP,4-44065,Y , for example . It consist of a wire gauze lid attach so that this breeding cage may have a box-like body of a cage , and the cavity for a feed of the letter of the longitudinal section abbreviation for V characters and may cover that top face opening on said body of a cage , the interior of the body of a cage and the exterior in which an animal be hold be only divide with the wire gauze lid , and air can go now in and out freely .

[0003]
[Problem(s) to be Solved by the Invention] Since the interior of the body of a cage and the exterior are only divided with the wire gauze lid, the disease germ which the laboratory animal within the body of a cage holds flows out, and the conventional laboratory animal breeding cage has the problem referred to as that pollute other laboratory animals, experimenters, etc. of a breeding cage, or the disease germ and the dust from the outside flow in the body of a cage, and pollute the laboratory animal, and has been a serious failure at the experiment of the transgenics especially in recent years.
[0004] This invention sets it as the main purpose to offer the laboratory animal breeding cage which can prevent the contamination between laboratory animals between breeding cages, or the cross contamination between the laboratory animal in a breeding cage, and human being in view of the above-mentioned technical problem by preventing the outflow of the disease germ to the exterior out of the body of a cage, or the inflow of the disease germ from the outside to into the body of a cage, or dust. Other purposes of this invention will be made clear from the following detailed explanation.
[0005]
[Means for Solving the Problem] The laboratory animal breeding cage concerning claim 1 of this invention The box-like body 1 of a cage, and the inside wire gauze lid 4 arranged so that it may have the cavity 3 for a feed of the letter of the longitudinal-section abbreviation for V characters and the top-face opening 2 may be covered in said body 1 of a cage. The box-like top cover 7 put on said body 1 of a cage so that it may have the opening 5 for filter set-up and the space section 6 for air supply may be formed above said inside wire gauze lid 4, The filter 8 of the shape of a sheet which prevents passage of a disease germ etc. although it is arranged along with the opening 5 for filter set-up of this top cover 7 and circulation of air is allowed. The outside wire gauze lid 9 for a filter presser foot arranged through said filter 8 at said opening 5 for filter set-up. By carrying out pivotable support connection to the both ends of this outside wire gauze lid 9, and stopping stop section 10a of the free end section in the stopped section of body of cage 1 both ends the lock members 10 and 10 of the both-sides pair which fixed the inside wire gauze lid 4, the top cover 7, the filter 8, and the outside wire gauze lid 9 to the body 1 of a cage -- since -- it is characterized by becoming.
[0006] After holding a laboratory animal M in the body 1 of a cage in use of the above-mentioned laboratory animal breeding cage, the inside wire gauze lid 4 is put on this body 1 of

a cage. and the requirement [redacted] ection of the food F is carried out into t[redacted] avity 3 for a feed.

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TECHNICAL FIELD

[Field of the Invention] This invention relates to the laboratory animal breeding cage for breeding laboratory animals, such as a mouse, a rat, and a guinea pig.

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PRIOR ART

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EFFECT OF THE INVENTION

[Effect of the Invention] While a filter is fixed along with opening for filter set-up through an outside wire gauze lid by making the stopped section by the side of the body of a cage stop the stop section of a lock member according to the laboratory animal breeding cage of claim 1, A top cover is fixed to the body of a cage through an outside wire gauze lid, and an inside wire gauze lid is fixed to the body of a cage through this top cover. Since an inside wire gauze lid, a top cover, a filter, and an outside wire gauze lid are thus fixed in one to the body of a cage, even if a breeding cage falls The body of a cage, an inside wire gauze lid, a top cover, a filter, and an outside wire gauze lid do not dissociate scatteringly, but can prevent flight of the laboratory animal from the interior of the body of a cage, and are effective especially at the time of the occurrence of an earthquake. For this reason, it becomes the optimal breeding cage for a transgenic experiment.
[0042] The filter of this laboratory animal breeding cage does not have a possibility that especially circulation of air may not have a possibility that that disease germ may flow out outside even if the body of a cage holds the disease germ, in order to prevent passage of a disease germ etc., although allowed, and the disease germ and dust from the outside may flow in the body of a cage. Therefore, the outflow of the disease germ to the exterior out of the body of a cage or the inflow of the disease germ from the outside to into the body of a cage or dust can be prevented, and the contamination between laboratory animals between breeding cages or the cross contamination between the laboratory animal in a breeding cage and human being can be prevented. Moreover, since the space section for air supply is formed in the interior of a top cover, while being able to take a large air capacity inside a breeding cage, the open air can be supplied to the space circles for air supply, therefore sufficient air can be supplied to a laboratory animal.
[0043] According to claim 2, an inside wire gauze lid does not have backlash ******, where the body of a cage is covered, therefore it can attach an inside wire gauze lid in the body of a cage at stability.
[0044] According to claim 3, the airtightness of the insertion part of the top cover to the body of a cage is securable enough.
[0045] While according to claim 4 being able to take the large air entrance of a top cover and being able to make the open air introduce effectively from the both-ends wall side opening part of this top cover, it can be made to discharge more effectively than a upper wall section side opening part. That is, while the warm air within the body of a cage goes up as it is and is discharged from the opening part by the side of the upper wall section, the open air is introduced from the opening part by the side of a both-ends wall, the convection current is effectively performed within a breeding cage, and, thereby, it can control the rise of the temperature in the interior of the body of a cage, and humidity, and also the rise of the concentration of the ammonia inside the body of a cage.

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TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] Since the interior of the body of a cage and the exterior are only divided with the wire gauze lid, the disease germ which the laboratory animal within the body of a cage holds flows out, and the conventional laboratory animal breeding cage has the problem referred to as that pollute other laboratory animals, experimenters, etc. of a breeding cage, or the disease germ and the dust from the outside flow in the body of a cage, and pollute the laboratory animal, and has been a serious failure at the experiment of the transgenics especially in recent years.
[0004] This invention sets it as the main purpose to offer the laboratory animal breeding cage which can prevent the contamination between laboratory animals between breeding cages, or the cross contamination between the laboratory animal in a breeding cage, and human being in view of the above-mentioned technical problem by preventing the outflow of the disease germ to the exterior out of the body of a cage, or the inflow of the disease germ from the outside to into the body of a cage, or dust. Other purposes of this invention will be made clear from the following detailed explanation.

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MEANS

[Means for Solving the Problem] The laboratory animal breeding cage concerning claim 1 of this invention The box-like body 1 of a cage, and the inside wire gauze lid 4 arranged so that it may have the cavity 3 for a feed of the letter of the longitudinal-section abbreviation for V characters and the top-face opening 2 may be covered in said body 1 of a cage, The box-like top cover 7 put on said body 1 of a cage so that it may have the opening 5 for filter set-up and the space section 6 for air supply may be formed above said inside wire gauze lid 4, The filter 8 of the shape of a sheet which prevents passage of a disease germ etc. although it is arranged along with the opening 5 for filter set-up of this top cover 7 and circulation of air is allowed, The outside wire gauze lid 9 for a filter presser foot arranged through said filter 8 at said opening 5 for filter set-up, By carrying out pivotable support connection to the both ends of this outside wire gauze lid 9, and stopping stop section 10a of the free end section in the stopped section of body of cage 1 both ends the lock members 10 and 10 of the both-sides pair which fixed the inside wire gauze lid 4, the top cover 7, the filter 8, and the outside wire gauze lid 9 to the body 1 of a cage -- since -- it is characterized by becoming.
[0006] After holding a laboratory animal M in the body 1 of a cage in use of the above-mentioned laboratory animal breeding cage, the inside wire gauze lid 4 is put on this body 1 of a cage, and the requirements injection of the food F is carried out into the cavity 3 for a feed. And what is necessary is to put a top cover 7, to arrange a filter 8 along with the opening 5 for filter set-up of this top cover 7, to carry the outside wire gauze lid 9 for a filter presser foot on this filter 8, to rotate downward each lock member 10 which has carried out pivotable support connection to the both ends of a top cover 7, and just to stop that stop section 10a in the stopped section by the side of the body 1 of a cage.

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DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] some laboratory animal breeding cages concerning this invention -- it is a cross-section front view.
[Drawing 2] some of these laboratory animal breeding cages -- it is a cross-section side elevation.
[Drawing 3] It is the decomposition perspective view of this laboratory animal breeding cage.
[Drawing 4] some bodies of a cage -- it is a cross-section front view.
[Drawing 5] some of these bodies of a cage -- it is a cross-section side elevation.
[Drawing 6] some inside wire gauze lids -- it is a top view.
[Drawing 7] It is the front view of this inside wire gauze lid.
[Drawing 8] It is the side elevation of this inside wire gauze lid.
[Drawing 9] (A) -- a part of top cover -- a cross-section front view and (B) -- the -- it is a cross-section side elevation a part.
[Drawing 10] (A) -- a part of outside wire gauze lid and lock member -- a top view and (B) -- the front view and (C) -- the -- it is a side elevation a part.
[Description of Notations]
1 Body of Cage
1a Edge wall
1b Side-attachment-wall section
1c Bottom wall section
2 Top-Face Opening
3 Cavity for Feed
3a The lower limit section of the cavity for a feed
4 Inside Wire Gauze Lid
4a Periphery frame (wire)
5 Opening for Filter Set-up
6 Space Section for Air Supply
7 Top Cover
7a Edge wall
7b Side-attachment-wall section
7c Upper wall section
8 Sheet-like Filter
9 Outside Wire Gauze Lid
9a Periphery frame (wire)
10 Lock Member
10a Stop section
10b ****
10c Protrusion lever
10d Horizontal lever
10e Handle
11 Protruding Line Section of Body of Cage
12 Engagement Step of Body of Cage
13 Rib of Body of Cage
14 Engagement Heights

15 Engagement Crevice
19 Concave Streak Section of Top Cover
20 Engagement Step
21 **** for Support
22 Rib
23 Engagement Heights
24 Engagement Crevice
26 Protruding Line Section

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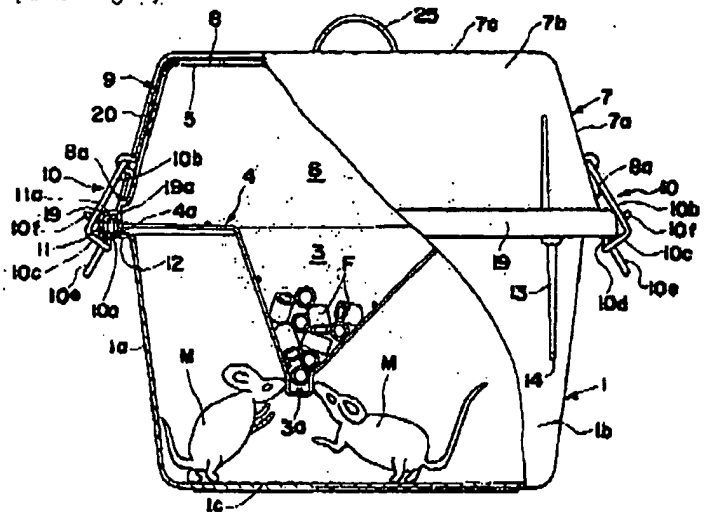
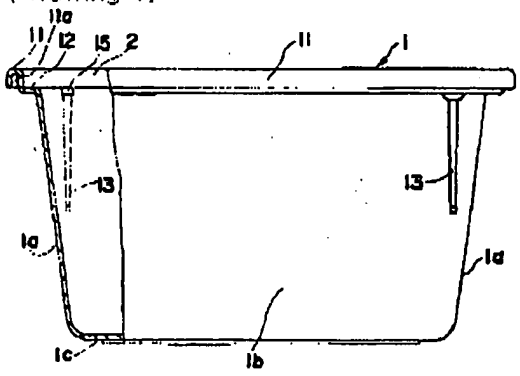
* NOTICES *

DRAWINGS

[Drawing 1]



[Drawing 4]



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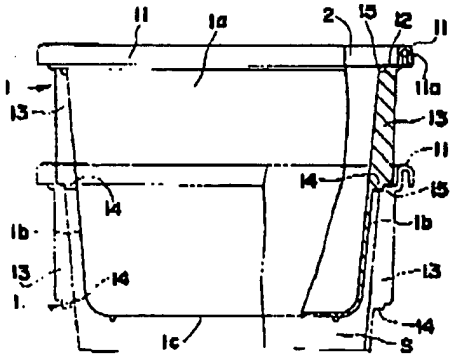

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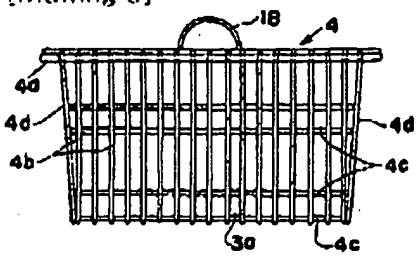

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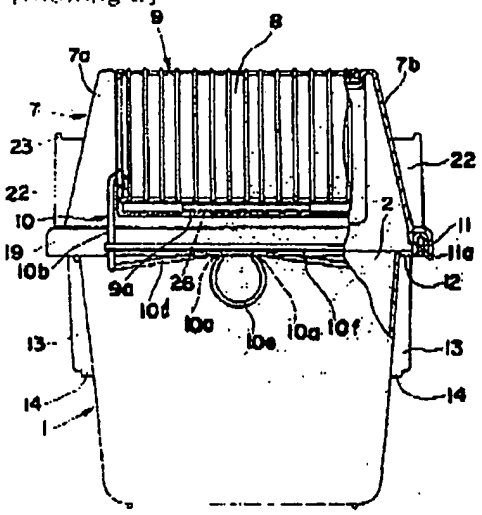
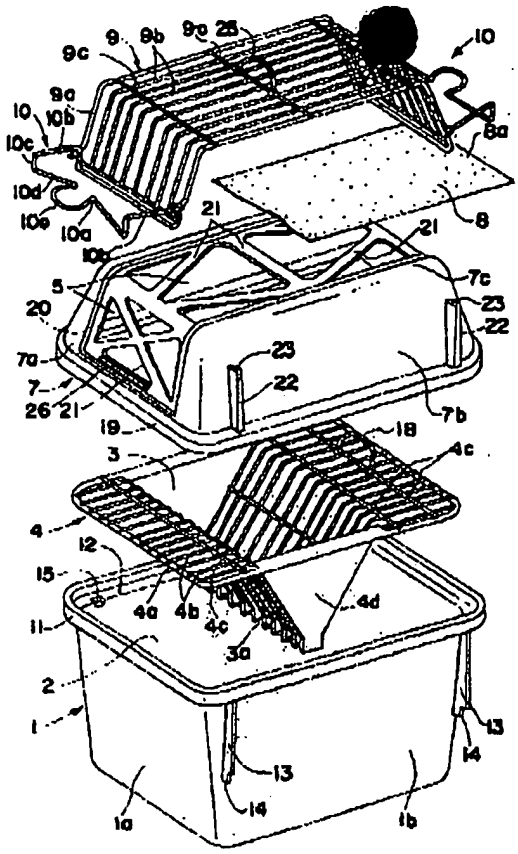
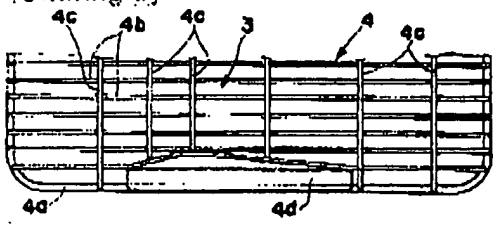


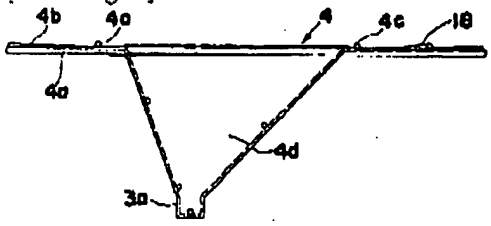
[Drawing 3]



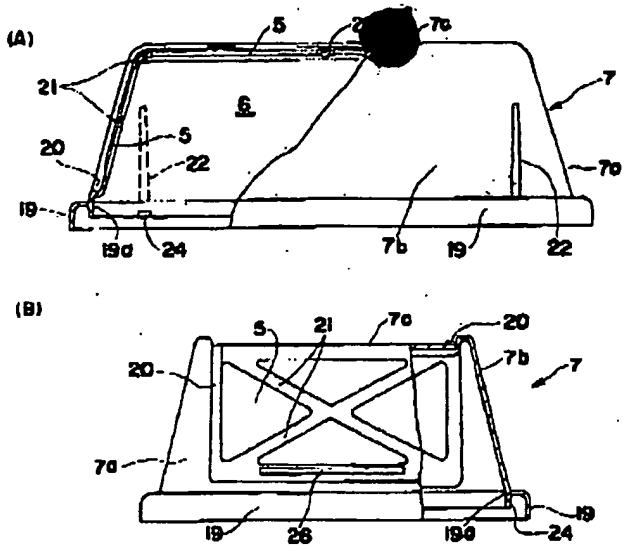
[Drawing 6]



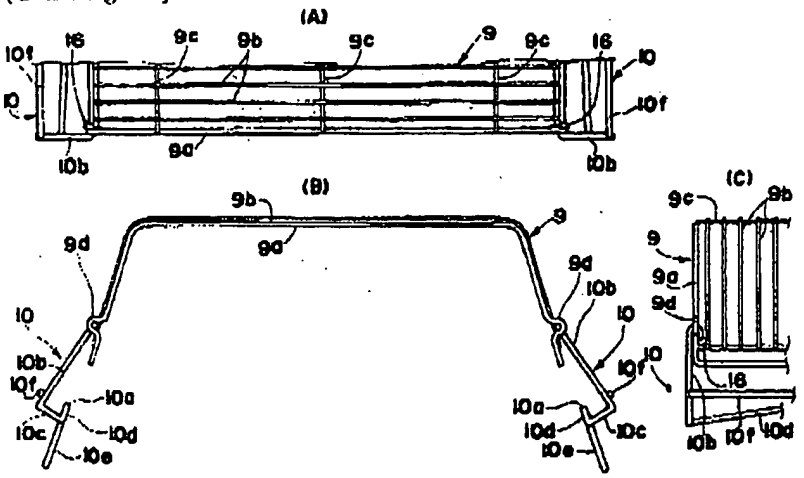
[Drawing 7]



[Drawing 9]



[Drawing 10]



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